

Killing and Cutting Beef On The Farm



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Killing and Cutting Beef

On The Farm

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HIGH QUALITY BEEF comes only from a high quality animal. There is no magic in canning that changes a scrubby, immature, rough and rangy calf into the choice beef that farmers and ranchers are entitled to have on their tables. Too many farm-killed beeves are scrub dairy calves weighing about 300 pounds on hoof and dressing out about 150 pounds of which about 30% is bone and waste. The remaining meat is dry, tough and unpalatable.

The better calves butchered on Texas farms and ranches, on the other hand weight from 500 to 800 pounds and dress out from 275 to 550 pounds, with only about 22% bone and waste. The resulting meat is tender, juicy and tasty.

Texas farmers and ranchers can provide the latter kind for home use without great difficulty. In the first place a beef-bred animal should be fattened, if possible. It yields more choice, thick muscles than a dairy-bred animal; lays on fat through the lean muscles, thereby increasing tenderness; yields a superior white, crisp fat, and the lean muscles are a bright, attractive red color. Select a deep, thick, compactly built calf in preference to a rough and rangy one, because the former will carry more natural fleshing and will fatten more uniformly. A calf should be 9 to 12 months old when killed, except for creep fed calves which make choice beef about two or three months earlier than others. Always select for killing a thrifty animal, and never one that is losing weight.

Fatten the best animal available, regardless whether it is steer or heifer. Heifers fatten a little quicker, but few people can tell the difference in the carcasses. A beef calf fed for 3 to 4 months after weaning on grain feeds will be extremely desirable for the home food supply. A calf that has had milk and good grazing on native pasture or sudan grass will be acceptable but can be much improved by feeding.

A practical method is to feed the calves grain, oats, shelled corn or milo before they are weaned. This may be done if the calf runs with it's mother by self feeding the grain in a pen that the cow cannot enter, or feeding the calf after the cow has been turned out for the day.

When feeding a weaned calf in the lot supply at all times all of the good hay that the calf will eat. Feed a protein supplement of 1 to 1½ pounds of cottonseed meal per day, or use a limited amount of cottonseed, not over 2 1/2 pounds daily. Feed the grains that are available, shelled corn, crushed ear corn or milo heads in the amount that the calf will eat without scouring. In the beginning this will be about 2 pounds daily and may be increased to 10 or 12 pounds. Start feeding with small amounts of cottonseed meal, cottonseed or grain and increase gradually. Do not feed moldy or dirty feeds, gentle the calf, let him have salt and plenty of clean water and the calf will do his best.

Take the calf off feed at least 12 hours before killing, and better still, 24 hours. Provide the animal all the clean, fresh water it will take. Don't kill an excited, over-heated or even very warm calf. Such ones seldom bleed out well, the meat usually develops a very dark red color, is often blood-shot, and may even turn black. Poor handling in preparation for killing such as using ropes around legs, throwing animal on hard surface, or beating over the back, causes bruises that show up as bloody spots or blood-shot areas on the carcass. Such spots tend to spoil more quickly.

Killing

If the animal is quiet enough to rope and move to the spot where it will be raised, a great deal of hard work can be avoided. Kill by shooting or by stunning with an axe. The ideal spot to hit is a point on the forehead at the crossing of two imaginary lines from the base of each horn to the opposite eye.



Sticking

After stunning, delay sticking until animal is relaxed. To avoid a painful kick, push head back with one foot and fore legs with the other. Stooping over, make incision through hide from brisket almost to jaw bone. Next cut neck muscles so as to expose windpipe. Raise windpipe with

hand, ram knife in to the hilt at right angles to the neck vertebrae and just in front of the brisket. Cut back to the breast bone. This cuts through a point where the juglar vein and carotid artery come together just under the point of the breast bone.

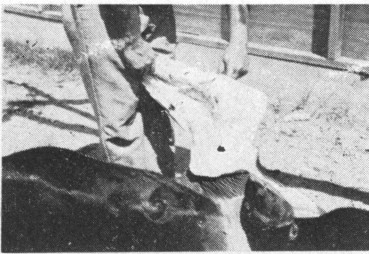
Removing Head

Remove hide from head by first cutting across the back of head from horn to horn, or across behind poll. Then continue the cut around the horn down over the eye to nostril. Peel hide down over cheek to the cut made in sticking. Peel hide from forehead and other cheek to where the ear can be cut off. Next remove the head by pulling it around so the horns act as a pry in clearing the tongue and jaw bone from the ground. By cutting just behind the jaw bones and across the esophagus a straight cut through the large atlas joint will sever the head. Cut out the tongue at this time.



Dropping Front Shanks

To remove front shanks, first rip the hide along the back of the leg from hoof to a point half way between knee and elbow joint. Peel back hide to expose the knee and cut off shank at the straight joint which lays just above the shin bone.

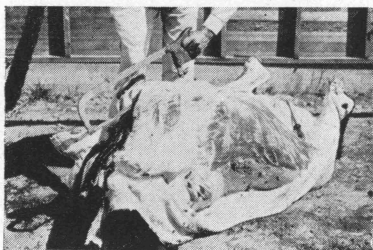


Dropping Hind Shanks

To remove hind shanks, first rip the hide along back of hind leg from hoof over the hock and down over the round to a point about six inches behind the cod or udder. This is almost an equal distance between cod and bung. Peel hide down over hock before attempting to cut off the shank. To break the hind shank cut through the tendons on each side of the leg where they attach to the bone. A cut here will strike a straight joint at lower edge of hock and just above the shin bone. Cut as far as possible and then break.

Skinning

The next operation is to skin the beef as much as possible as it lays on its back. First slit the hide from center of brisket to the bung, and then start siding being careful to cut neither hide nor meat. Do not hold the hide tight as a sharp knife will tend to run between meat and hide if skin is held loosely and in its natural position. In skinning brisket continue until elbow joint is exposed. Then take hold of the loose brisket hide where it lays by the end of foreleg, pull this hide over and across the foreleg, and then cut in line with the shank to the elbow joint. This completes the cut made when dropping the fore shanks and in the same operations opens the hide over the brisket.



Splitting Brisket

Split brisket by sawing directly through the center.

Opening Underline

Next rip open the underline by inserting knife handle on inside to prevent cutting viscera, keeping handle close to under-surface, and pushing backward until cod or udder is cut.



Splitting Pelvic Bone

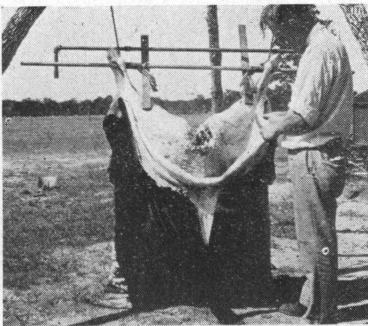
Saw or knife can be used to split the pelvic bone but with mature animals the saw is usually preferred. This is a good time to remove the caul fat which covers the paunch.

Raising Beef

A simple way of raising a beef is illustrated on the cover page. A fork or rake handle or 6-foot gas pipe is slipped through holes on hind shanks, ropes suspended from tree limb (tied wide apart at top) and below to short sticks which are placed on inside of shanks. Two men wind up the rope around pipe or handle, using the short sticks as levers. When at the right height another pipe or rod or bar can be laid across between ropes and sticks to keep ropes from unwinding. As the beef is raised the legs are spread farther and farther apart, due to the fact that the ropes are tied wide apart at the top. Where trees are not handy a tripod answering the same purpose can be made out of three stout 12-foot poles, or of 2 x 6's, bolted or wired together at the top. A cross bar for suspending ropes can be wired to two legs about 8 or 9 feet above the ground.

Removing Tail

After the beef has been raised about half way clear of the ground, split the inside hide the full length of the tail, cut off tail bone close to carcass, and after peeling out a short distance a dry cloth can be used to give a good grip for pulling tail bone clear out of the hide.



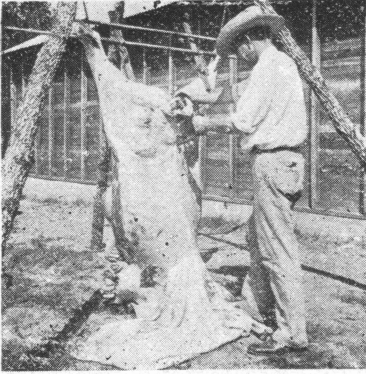
Rumping

With the carcass still suspended about half way, skin down over the rump. This rumping should not extend to the upper part of the rounds. There the hide should be caught in the hands and pulled from the rounds so that the thin membrane known as fell may be left unbroken on the carcass. This fell makes the hind quarter more attractive

and if put in storage for ripening the meat will keep much better..

Removing Viscera

The viscera can now be removed by cutting around the bung and loosening paunch and liver. Before the liver falls to the ground cut it loose and pull it free from the gall bladder. Cut the diaphragm just at the edge of the lean muscle so lungs and heart can be removed. Cut heart loose from the lungs at this time.

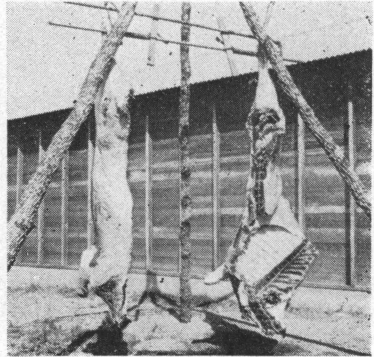


Splitting Beef

Raise the beef a foot or two. Complete the removing of the hide, and then, while the carcass is low enough for easy working, start splitting with the saw.

Quartering

After the beef has been swung clear of the ground, finish splitting down the center of the backbone. Wash the two sides clean of all dirt and blood spots. On heavy beeves quartering will make handling easier. To divide the side, leave one rib on the hind quarter to hold that quarter in shape. Let carcass hang to cool and firm at least 24 hours before cutting.

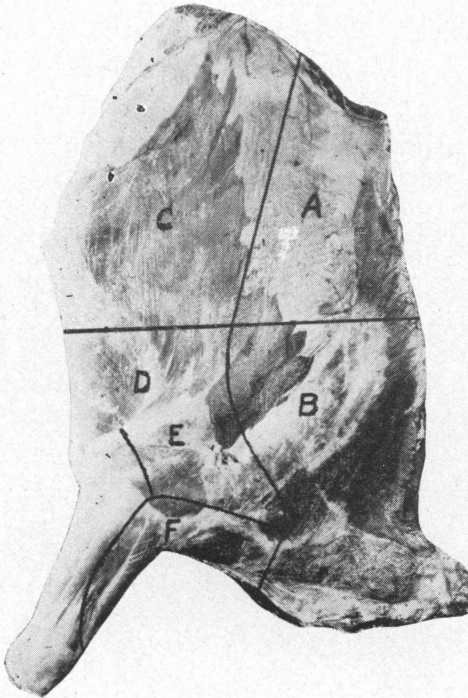


Cutting

Probably not more than 15% of farm-killed beef is eaten fresh. Canning is used to preserve most of the rest. Corning and drying are preservation methods not much in use at present, but are worthy of greater popularity. The cutting methods outlined in this bulletin have been worked out with these points in mind. The cuts described utilize the carcass to greatest advantage, save time, make canning simpler, and provide for corning and drying if desired.

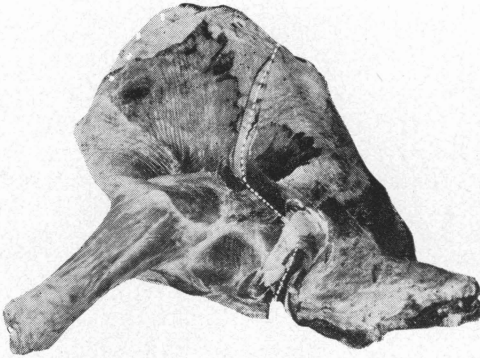
It is not necessary to can beef tomorrow that was killed today. Beef should be aged or ripened by hanging in a cool place at least 24 hours and for several days, to improve quality and tenderness. Beef that carries a good covering of fat will ripen more satisfactorily and keep longer than a thin one. The latter should not be ripened longer than 3 or 4 days. If cold storage must be used, 38 degrees Fahrenheit is ideal.

THE FORE QUARTER



Fore Quarter Cuts

- | | | |
|-----------------------|---|-------|
| A. Rib | } | Back |
| B. Chuck | | |
| C. Navel | } | Plate |
| D. Brisket | | |
| E. Clear-cut Shoulder | | |
| F. Shoulder Arm | | |



Dividing Fore Quarter

Divide the back (A & B) from plate and shank by cutting from a point 2 or 3 inches from the eye on the rib end straight toward the angle made by neck and shank. When the knife comes to the thick shoulder muscle, swing in a curving manner so as

to cut over the shoulder knuckle. This dejoint the scapula from the fore leg. To complete the cut saw the 12 ribs along the cut just made.

Removing Shoulder Arm

To remove shoulder arm (F), cut close to the front of the fore leg, remove the meat in front of the leg and down as deep as the brisket.

Use: Preferably grind for making into chili and hamburger, or cube for hash. It may be rolled and tied for use as a pot roast, either fresh or canned.

Removing Clear Cut Shoulder

First take out the shank bone by cutting just behind the elbow joint and down along the bone. A few strokes of the knife will loosen the shank bone so that it can be lifted from the piece. Next cut out the clear cut shoulder by separating the muscles at their natural divisions.

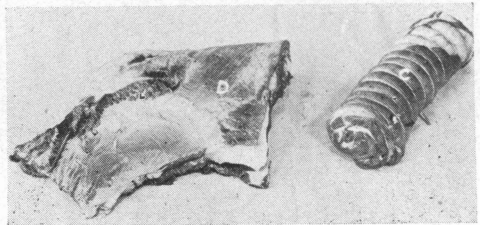
Dividing The Plate

Divide the plate (C & D) by cutting between the 5th and 6th ribs. (Always count ribs from front or brisket end).

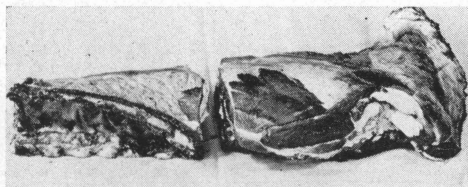
Use: These pieces can be sawed across the bone and used as short rib roasts or boiling beef. (For other uses see next illustration).

Preparing Plate

Bone and roll the navel and brisket for ease of handling. This is illustrated here with the navel.



Use: These rolls may be canned but should be labeled N.S.G.—(not so good). They are often put in brine to be used as corned beef.



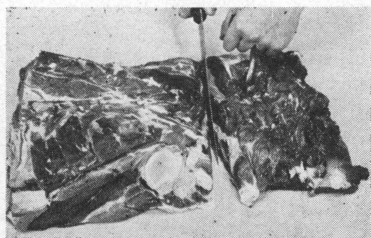
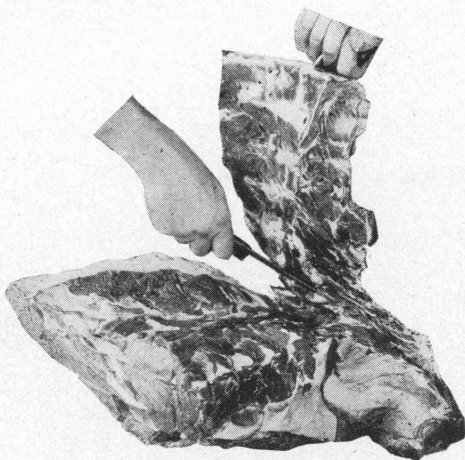
Dividing Back

Divide the back into rib (A) and chuck (B) by cutting between the 5th and 6th ribs.

Use: The ribs furnish one of the choicest roasts in the beef. When canned the ribs should be boned and rolled, making the roll of a size to fit the cans. (For chuck see following illustration).

Boning The Chuck

Prepare chuck by removing the five ribs and neck bone in one piece. Keep knife close to bones when cutting. Next remove the large tendon or back strip found running along the top of shoulder and neck.



Removing Neck

Cut neck off starting at a point several inches from the point of the shoulder blade and cutting parallel with the rib side.

Use: The neck is best utilized in ground beef products.



Separating Top and Bottom Chuck

Separate top and bottom chucks by splitting the piece in half. The shoulder blade is left on the "top" chuck. Cut in from the ends so as to hit the full length of the two edges of the shoulder blade. Score along the two edges of the blade, and just back of the knob on the narrow end. "Bottom" chuck (see hock in illustration) can be pulled clean

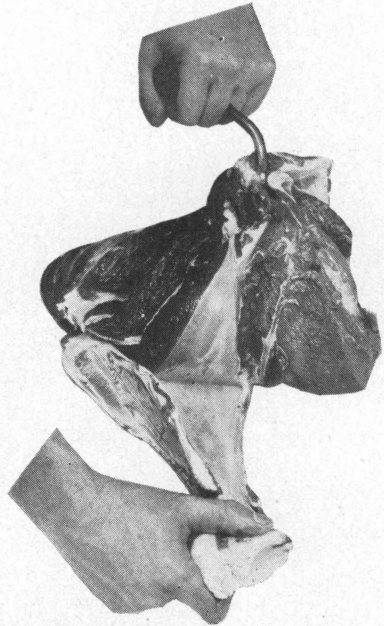
from bone with ease.

Use. The bottom chuck is the second best piece in the fore quarter. It is a roast which should be rolled.

Preparing Top Chuck

Remove shoulder blade by cutting meat loose from the feather bone (protruding edge of shoulder blade). Continue cutting until knife can be run down on the inside edge of feather bone, being sure to score the bone with tip of knife. By scratching over the end of the bone (under thumb in picture) the meat can be pulled clean from the bone.

Use: When rolled and tied this piece makes a good roast. For canning it should be rolled and tied to fit the can.



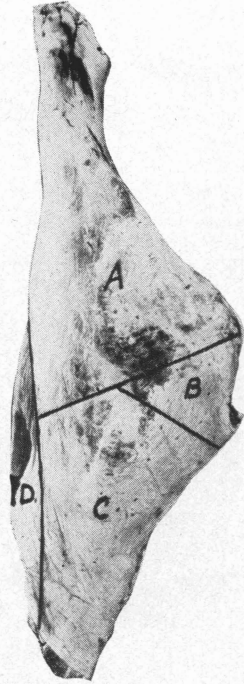
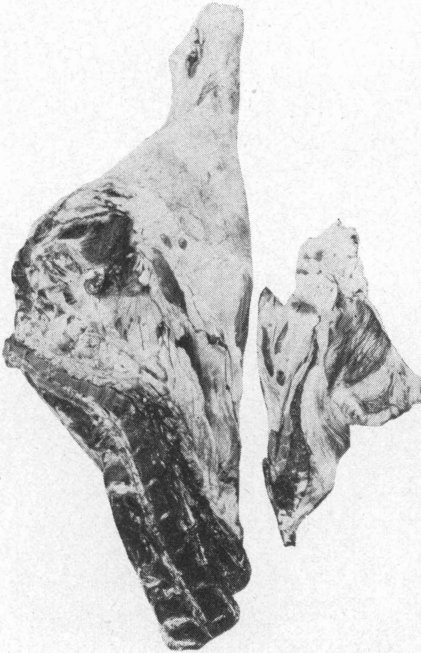
Rolled Chuck Roast

Bottom and top chucks should be rolled and tied for use as roasts. Roll with the grain so that in serving they can be cut across the grain.

THE HIND QUARTER

Hind Quarter Cuts

- A. Round
- B. Rump
- C. Loin
- D. Flank

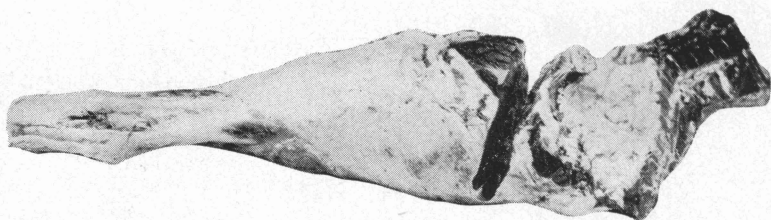


Removing Flank

To remove flank start on top of the round, "face" the round free of surplus fat and then cut in a straight line with the shank, and continue out to the rib end.

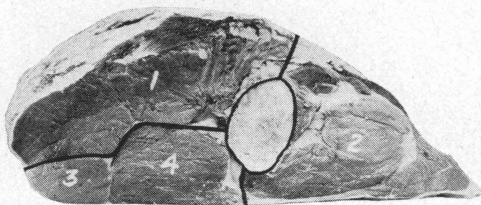
Use: The flank is not a tender piece of meat. The best part of it is the flank steak (on inside) which can be removed and used as a Swiss steak. When can-

ning any part of the flank, separate lean meat from fat and tough tissue, and grind for chili and hamburger or cube for hash.



Removing Round

Separate round from rump and loin by cutting just behind the pelvic bone. Stay as close to this bone as possible.



Round Cuts

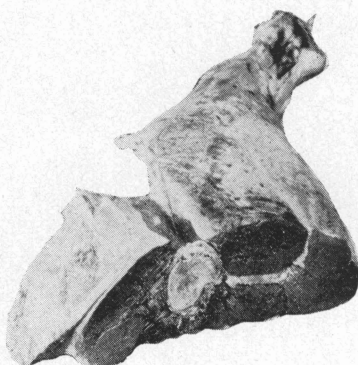
The round has four muscles which are next divided into three pieces: 1, Top or inside round; 2, sirloin tip; 3 and 4, bottom or outside round. In

tenderness these muscles rank in this numerical order.

Removing Sirloin Tip

Cut over stifle joint, and then with the round flat on the table cut so as to score the entire length of round bone from stifle joint to the center of the round bone on the cut surface. Turn round over and score other side in same way. If well scored the knuckle muscle can be pulled clean from the bone very easily.

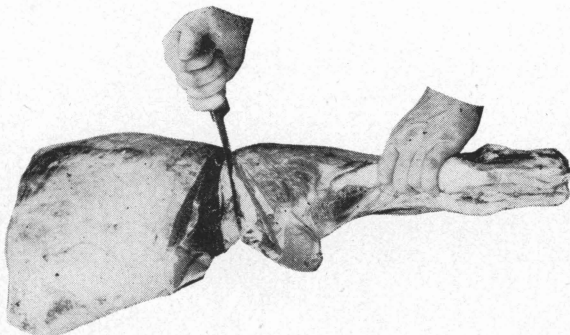
Use: This muscle is second in tenderness of the round cuts. It is usually canned as steak.



Removing Hind Shank

Remove lower end of leg by cutting directly across at the end of the large stifle joint.

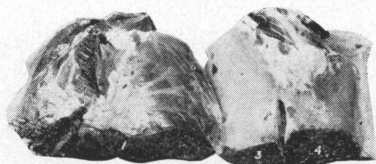
Use: Grind meat on shank for chili and hamburger.



Separating Top and Bottom Rounds

Remove the bone and follow natural muscle divisions to separate inside of round (1) from outside of round (3 and 4).

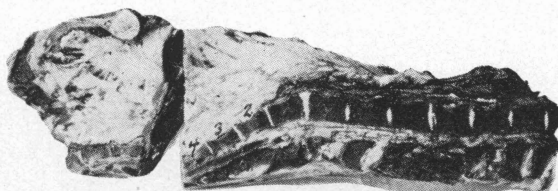
Use: Generally used for steak. Can be cured for dried beef as described later.



Separating Rump From Loin

Starting at the rise of the back bone, count down four tail bones. Leaving the fourth tail bone entirely on the loin side, saw from this point across to a point about one inch in front of the pelvic bone. This cut should yield the "little round bone" which varies in size from a dime to a dollar—a test that the cut was correctly made.

Use: The rump is an ideal pot roast. For canning, bone and tie in a roll. The loin yields the best steaks in the beef, particularly when used fresh. When canning the entire loin it is best to bone before cutting into roasts or steaks.



Curing Beef

BEEF CAN BE CURED much like pork, but cannot be kept as long. The pieces best adapted to curing for drying are the round muscles, generally termed the "dried beef set." The cheaper cuts of beef such as navel, brisket, rump and parts of the chuck are used for corning. These cuts are classed as boiling beef, and should be so used if made into corned beef. If more corned beef than this is desired, any of the tied rolls may be used for this purpose.

Corning Beef

Cure Recipe

1½ pounds salt
1 ounce salt petre
¼ pound sugar
1 gallon water

Pack and weight the meat down in a barrel or stone jar. Cover meat well with the above mixture. Corned beef will be ready to use from the brine in about 10 days to two weeks, according to size of piece. It can be used direct from brine as needed, but if left in the cure longer than 30 days parboiling will probably be necessary. On this account it is usually best to can corned beef when cured.

Drying Beef

The same cure recipe is used in drying beef as in corning, and the same barrel or jar may be used. Corning and curing in preparation for drying may be carried out in the same container at the same time. Use only the dried beef set (round muscles) in making dried beef, leaving each piece in the cure 3 days for each pound in the piece. A 10-pound piece should remain in the cure 30 days. When taken out of the cure wash thoroughly and hang 24 hours to dry. Smoke lightly with hardwood smoke and hang away to continue the drying. It is ready for use when firm and hard. Its quality is greatly improved by slicing very thin.